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25X1

October 27, 1961

Rec'd EB
10/21/67
Joe
Walt WE
File
Model Inc.

Dear Sir:

In accord with our telephone conversation today, we are enclosing a Kirk & Blum catalogue for their Series "C" Centrifugal Collectors.

Within the category of Type "C" Design 5 Dust Collectors in the catalogue, we have circled Size 19. We think that this unit, manufactured from Type 310 stainless steel, will be useful in your Washington, D. C., application of the Model 1 Incinerator.

Sincerely,

25X1

ABW:mlm

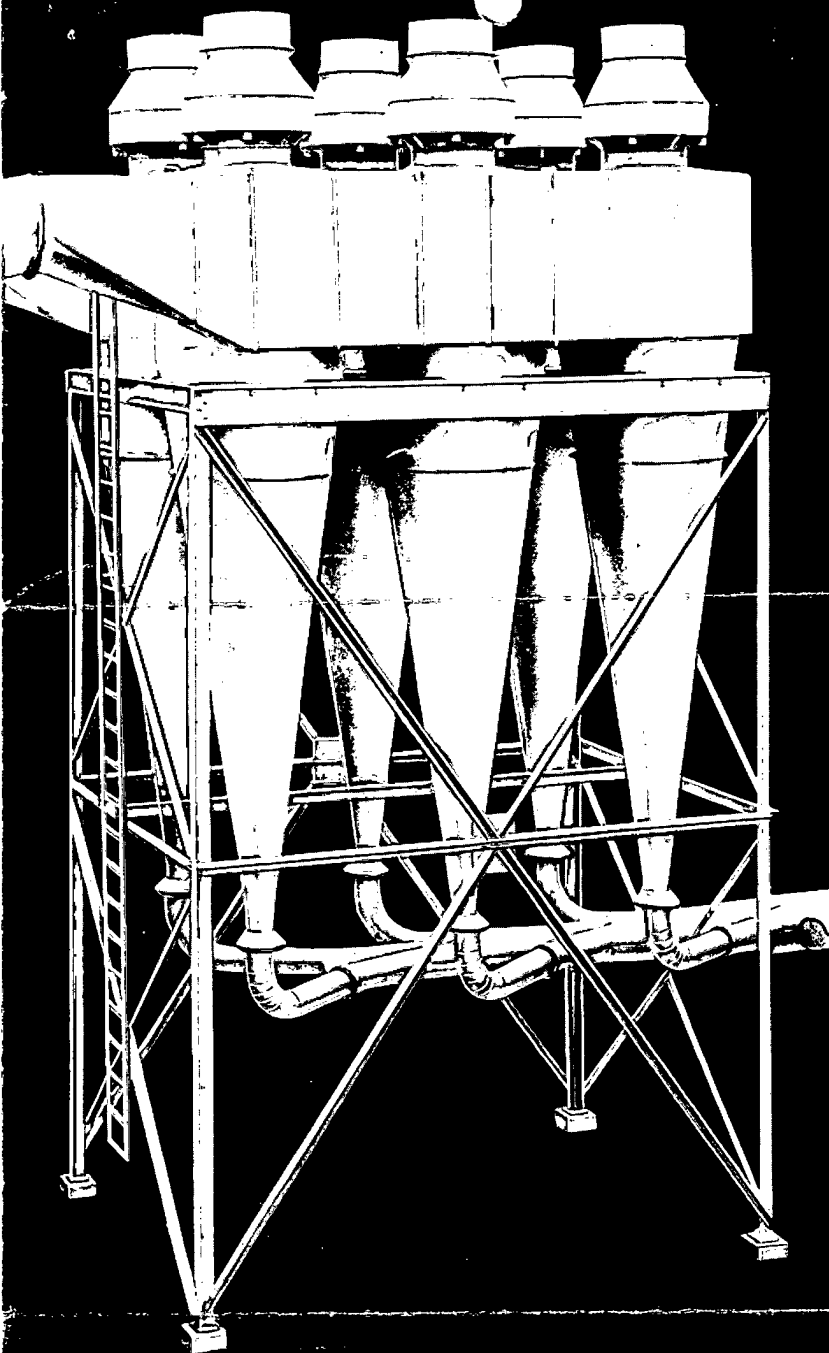
Enclosure

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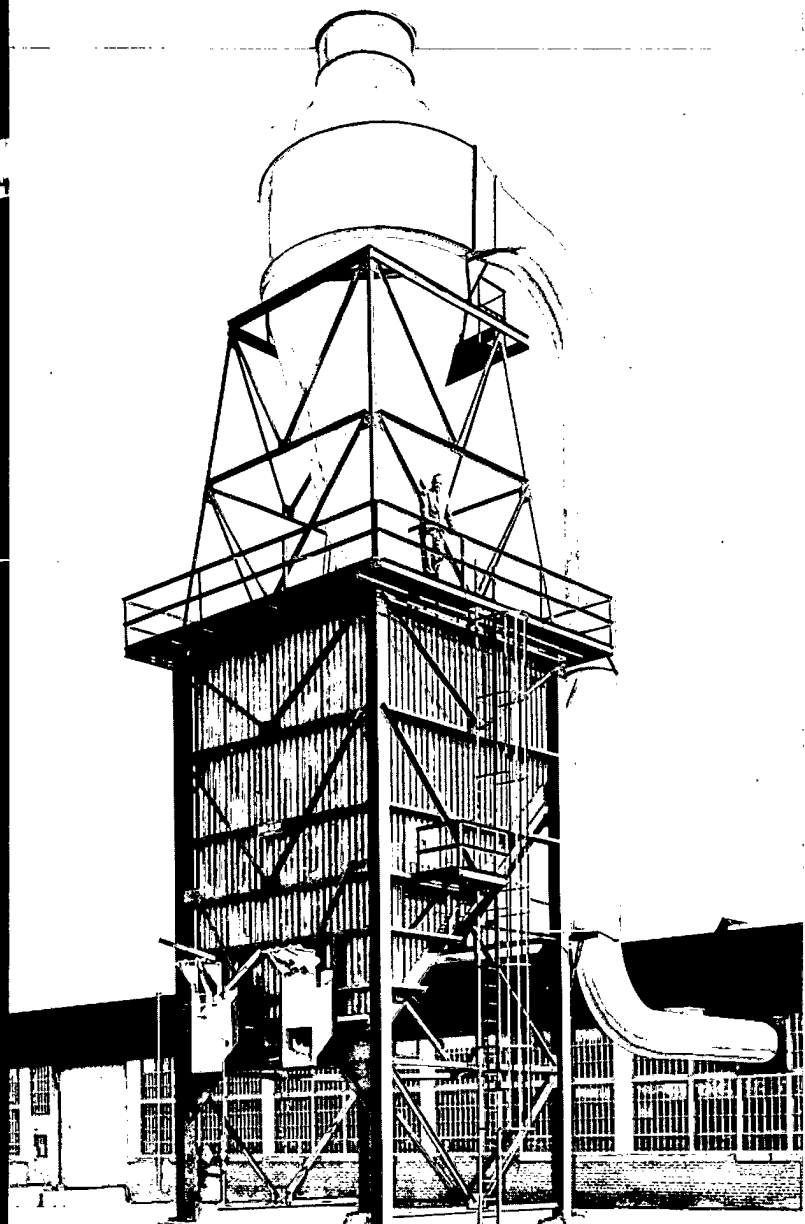
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Centrifugal Collectors

series
"C"

- Highly efficient air cleaning and dust collection . . . using centrifugal force
- 2 Design Types...41 sizes... for widest range of industrial applications
- Low initial investment and operating costs . . . minimum maintenance



KIRK & BLUM

CINCINNATI 9, OHIO

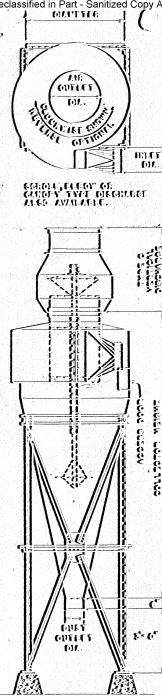
series "C" CENTRIFUGAL COLLECTORS

Two design types, tabling 41 sizes, covering the widest possible range of industrial application, provide efficient results consistent with initial and operating costs. These collectors are the result of fifty years experience in manufacturing and applying centrifugal collectors, as well as continuous research and development in this field.

The Design 3 Collector is intended for shavings, sawdust, wood chips, etc., and is primarily for dust sizes below 44 microns, such as coal, foundry, flour, cement and the like. The inlet and dust outlets are of generous size to handle the usual stray bulk objects. They are also used on shredded plant refuse. At standard air density, these collectors operate at only 2" water column S.P.

Equipped with a relatively small diameter, long cone, the Design 5 Collector is a high centrifugal force unit, designed primarily for dust sizes below 44 microns, such as coal, foundry, flour, cement and the like. The collector is normally rated at 4" water column S.P. at standard air density, and will show extremely high efficiency down to 20 microns on all sizes. In the range of 5 to 20 microns, particle size, shape and weight will influence the selection of collector size and efficiency. Only small diameter units may be used in the range from 5 to 10 microns.

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TYPE "C" DESIGN 3 Dust Collectors

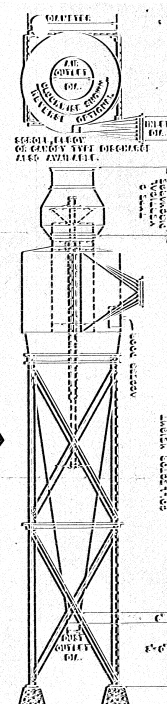
SIZE	CAPACITY C.F.M.	DIAMETER	HEIGHT	INLET DIAMETER	AIR OUTLET	DUST OUTLET	TYPE C GAUGE	COLLECTOR	STAND	FIRE DAMPER	TYPE C OUTLET	APPROX. NUMBER PIECES*	SIZE
4	300	1'-4"	4'-0"	0'-4"	0'-10 1/2"	0'-3"	1'-4"	18	135	185	13	37	1 4
6	750	2'-0"	5'-3"	0'-6"	0'-11"	0'-4"	1'-8"	18	335	485	17	58	1 6
8	1500	2'-8"	6'-8"	0'-8"	1'-2"	0'-5 1/2"	2'-2"	18	585	735	21	73	1 8
10	2100	3'-4"	8'-4"	0'-10"	1'-5"	0'-7"	2'-6"	18	785	935	25	86	1 10
12	3100	4'-0"	9'-8"	1'-0"	1'-10"	0'-8"	3'-0"	18	985	1135	29	119	1 12
14	4200	4'-8"	11'-3"	1'-2"	2'-2"	0'-10"	3'-4"	18	1185	1335	33	134	1 14
16	5400	5'-4"	12'-5"	1'-4"	2'-6"	0'-11"	3'-10"	18	1485	1635	37	156	1 16
18	7500	6'-0"	14'-1"	1'-6"	2'-10"	1'-1"	4'-4"	18	1885	2035	41	178	1 18
20	9600	6'-8"	15'-6"	1'-8"	3'-1"	1'-2"	4'-8"	18	2185	2335	45	200	1 20
22	10800	7'-4"	17'-0"	1'-10"	3'-5"	1'-3"	5'-2"	16	2485	2635	49	222	1 22
24	12600	8'-0"	18'-3"	2'-0"	3'-9"	1'-5"	5'-6"	16	2785	2935	53	244	1 24
26	14500	8'-8"	19'-11"	2'-2"	4'-0"	1'-6"	6'-0"	16	3085	3235	57	266	1 26
28	17700	9'-4"	21'-4"	2'-4"	4'-4"	1'-8"	6'-4"	16	3385	3535	61	288	1 28
30	19600	10'-0"	22'-9"	2'-6"	4'-8"	1'-9"	7'-0"	16	3685	3835	65	310	1 30
32	22300	10'-8"	24'-3"	2'-8"	5'-0"	1'-10"	7'-4"	16	3985	4135	69	332	1 32
34	25200	11'-4"	25'-10"	2'-10"	5'-2"	1'-11"	7'-10"	16	4285	4435	73	354	1 34
36	28000	12'-0"	27'-0"	3'-0"	5'-6"	2'-1"	8'-4"	16	4585	4735	77	376	1 36
38	31000	12'-8"	28'-11"	3'-2"	5'-11"	2'-2"	8'-10"	16	4885	5035	81	398	1 38
40	34900	13'-4"	30'-3"	3'-4"	6'-3"	2'-4"	9'-4"	16	5185	5335	85	420	1 40
42	38800	14'-0"	31'-8"	3'-6"	6'-7"	2'-6"	9'-8"	16	5485	5635	89	442	1 42
44	42700	14'-8"	33'-0"	3'-8"	6'-11"	2'-8"	10'-2"	14	5785	5935	93	464	1 44
46	46600	15'-4"	34'-9"	3'-10"	7'-2"	2'-8"	10'-8"	14	6085	6235	97	486	1 46
48	50500	16'-0"	36'-11"	4'-0"	7'-6"	2'-10"	11'-2"	14	6385	6535	101	508	1 48
50	54400	16'-8"	37'-4"	4'-2"	7'-9"	2'-11"	11'-8"	14	6685	6835	105	530	1 50

*Excluding air discharge outlet.

TYPE "C" DESIGN 5 Dust Collectors

SIZE	CAPACITY C.F.M.	DIAMETER	COLLECTOR HEIGHT	INLET DIAMETER	AIR OUTLET	DUST OUTLET	C-OUTLET HEIGHT	GAUGE	COLLECTOR	STAND	FIRE DAMPER	TYPE C OUTLET	APPROX NUMBER PIECES*	SIZE
4	200	1'-0 1/2"	5'-0"	3/4"	0'-5 1/2"	3"	1'-4"	1 1/2"	100	164	10	13	2	4
6	400	1'-4 1/2"	6'-3"	1"	0'-7 1/2"	3 1/2"	1'-8"	1 1/2"	150	210	13	30	2	6
8	600	1'-7 1/2"	7'-4"	1 1/4"	0'-8 3/4"	3"	2'-2"	1 1/2"	200	256	16	30	2	8
10	800	2'-1 1/2"	8'-5"	1 1/2"	0'-10 1/2"	3 1/2"	2'-6"	1 1/2"	250	302	19	32	2	10
12	1000	2'-5 1/2"	10'-2"	1 3/4"	0'-11 1/2"	3 3/4"	3'-0"	1 1/2"	300	348	22	34	2	12
14	1200	2'-9 1/2"	11'-7"	2"	1'-1 1/2"	4 1/2"	3'-4"	1 1/2"	350	394	25	36	2	14
16	1400	3'-3 1/2"	13'-0"	2 1/4"	1'-3 1/2"	5 1/2"	3'-8"	1 1/2"	400	440	28	38	2	16
18	1600	3'-7 1/2"	14'-5"	2 3/4"	1'-5 1/2"	6 1/2"	4'-2"	1 1/2"	450	486	31	40	2	18
20	1800	4'-1 1/2"	15'-11"	3"	1'-7 1/2"	7 1/2"	4'-6"	1 1/2"	500	532	34	42	2	20
22	2000	4'-5 1/2"	17'-7"	3 1/4"	1'-9 1/2"	8 1/2"	5'-0"	1 1/2"	550	578	37	44	2	22
24	2200	4'-9 1/2"	19'-2"	3 1/2"	1'-11 1/2"	9 1/2"	5'-4"	1 1/2"	600	624	40	46	2	24
26	2400	5'-3 1/2"	20'-8"	3 3/4"	2'-1 1/2"	10 1/2"	5'-8"	1 1/2"	650	670	43	48	2	26
28	2600	5'-7 1/2"	22'-4"	4"	2'-3 1/2"	11 1/2"	6'-2"	1 1/2"	700	716	46	50	2	28
30	2800	6'-1 1/2"	24'-0"	4 1/4"	2'-5 1/2"	12 1/2"	6'-6"	1 1/2"	750	762	49	52	2	30

*Excluding air discharge outlet.



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AIR CLEANING by centrifugal force

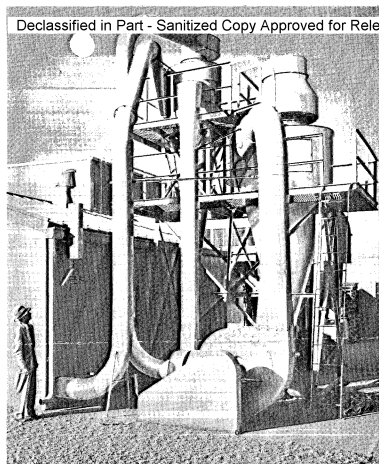
This air cleaning method is limited only by the magnitude of the force created and the time cycle within the unit. From the standpoint of theoretical design, any dust particle, regardless of size, can be separated from an air stream, provided the weight of the particle is greater than the weight of the air displaced. Because initial expense and operating cost both increase as the particle size decreases, the use of centrifugal separation is limited by practical considerations.

COLLECTOR SELECTION

When collectors discharge to the atmosphere, they must have efficiency in the range of 99% plus to avoid public nuisance in many locations. Kirk & Blum collectors will produce results of this magnitude when properly selected for the materials to be handled.

A screen test will frequently give enough information to safely select Design 3 collectors. Past experience in handling the same material can also be an excellent guide.

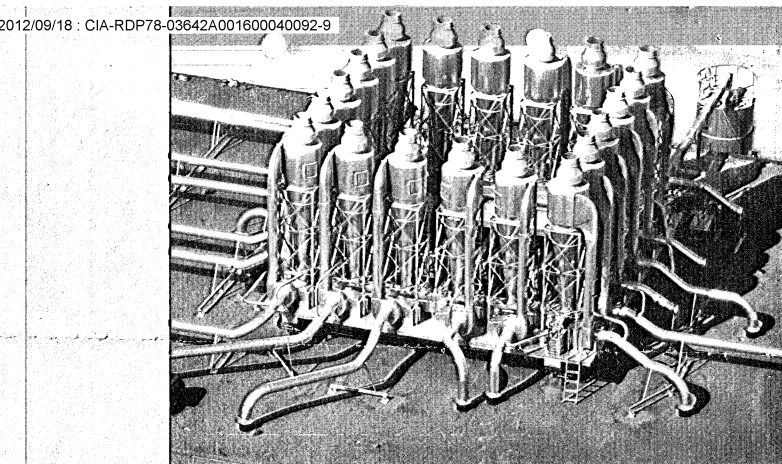
The selection of collectors for materials below 44 microns can be guided by a particle size analysis when percentages are determined by elutriation down to one (1) micron. A test run of material in our research center is frequently made with full size equipment to produce conclusive answers. There are conditions, however, where conclusive evidence can only be obtained under actual operation.



Research and Development Center operated by Kirk & Blum utilizes full size equipment to determine proper collector selection.

COMBINATION SYSTEMS

On those applications which require the collection of bulk as well as fine dust, effective results may be obtained by the use of a Design 3 collector for primary cleaning, followed by a battery of small diameter Design 5 collectors for after-cleaning. Very efficient results on difficult applications have been achieved in this manner.



Battery of Type "C"—Design 5 Collectors on Plastic Finishing Application

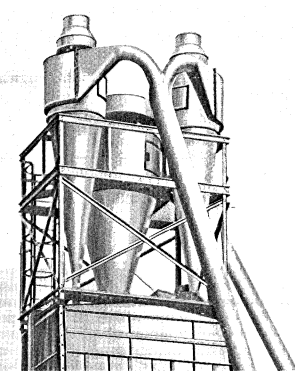
Shown here are typical examples of complete dust collecting systems . . . designed, fabricated and installed by Kirk & Blum. Your assurance of satisfaction in control of industrial dusts is the single responsibility for the system operation, assumed by

Kirk & Blum on every complete system they install. This assurance is further backed by their wide experience, proven design, and exceptional pride of craftsmanship.

Type "C"—Design 3 Collectors Woodworking Application



Design 3 Precleaner—Design 5 After-cleaners Plant Refuse Shredding Application



Subject to the limitations in particle sizes mentioned above, and on page 2, Kirk & Blum Series "C" Collectors will produce efficient results with low initial investment and operating costs, as well as minimum maintenance . . . an item of great magnitude in various complex mechanical collectors.

For 50 years, The Kirk & Blum Manufacturing Company has been engaged in the design, fabrication and installation of industrial dust collecting systems. To secure assistance in the solution of your dust collection problem, contact Kirk & Blum's Engineering Service Department. They will analyze your problem, and offer suggestions for collector applications, or for a complete dust collecting system.

Specifications
and Dimensions of
Design 3 and Design 5
Collectors are shown
on inside pages

THE KIRK & BLUM MANUFACTURING COMPANY CINCINNATI 9, OHIO

ITEM

- ① PRESENT MODEL 1 INCINERATOR WITH ITS 16-IN. LENGTH OF STRAIGHT ST. STEEL VENT PIPE
- ② VENTILATED RADIATION SHIELD
- ③ RAIN CAP
- ④ STAINLESS STEEL DUCTING AND ELBOW
- ⑤ STAINLESS STEEL TRANSITION FROM ROUND TO RECTANGULAR
- ⑥ STAINLESS STEEL CYCLONE DUST SEPARATOR
- ⑦ STAINLESS STEEL EXIT DUCTING
- ⑧ DUST STORAGE HOPPER
- ⑨ DUST DISCHARGE VALVE
- ⑩ SUMP TO SEWER, AND WATER TAP
- ⑪ MOVE PRESENT PREFABRICATED, REFRACTORY-LINED STACK AND EXTEND TO TOP OF LARGE BRICK CHIMNEY

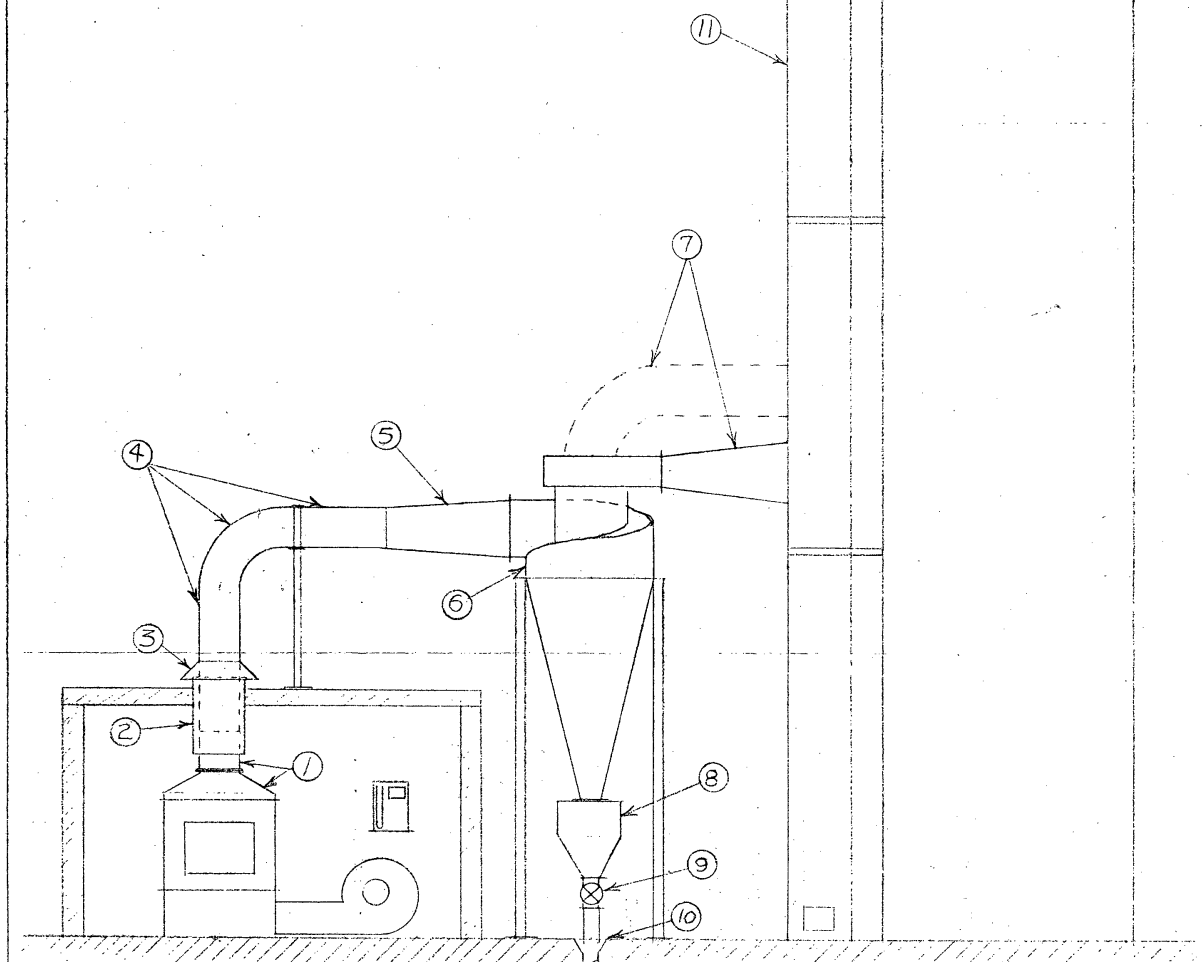


FIGURE 1. POSSIBLE ARRANGEMENT FOR A DRY-TYPE CYCLONE SEPARATOR

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- ① PRESENT MODEL 1 INCINERATOR WITH ITS 16-IN. LENGTH OF STRAIGHT ST. STEEL VENT PIPE
- ② VENTILATED RADIATION SHIELD
- ③ RAIN CAP
- ④ STAINLESS STEEL DUCTING AND ELBOW
- ⑤ STAINLESS STEEL QUENCHING DUCT WITH WATER SPRAYS
- ⑥ WET DUST SCRUBBER WITH EXHAUST BLOWER AND CIRCULATING WATER PUMP. (ST. STEEL SCRUBBER)
- ⑦ DISCHARGE WATER LINE TO SEWER
- ⑧ STAINLESS EXIT DUCTING
- ⑨ MOVE PRESENT, PREFABRICATED, REFRACTORY-LINED STACK AND EXTEND TO TOP OF LARGE BRICK CHIMNEY, OR ERECT STAINLESS STEEL STACK OF SAME HEIGHT
- ⑩ DAMPER WITH INTERLOCKING CONTROL LINKED TO AIR DAMPER OF INCINERATOR

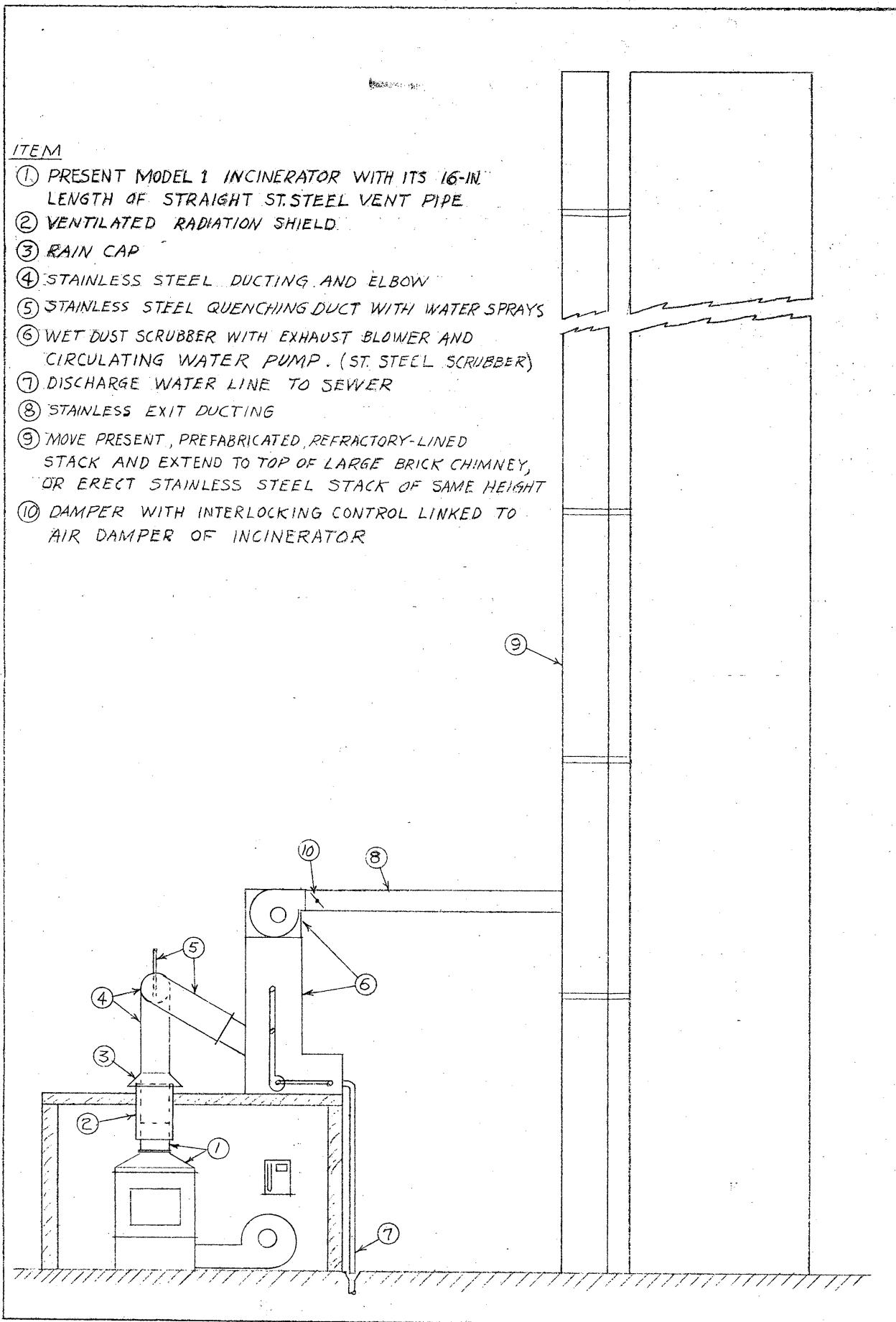


FIGURE 2. POSSIBLE ARRANGEMENT FOR A WET-TYPE DUST SCRUBBER

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